

Notice of Allowability

Application No.

09/903,521

Applicant(s)

NAKAMURA, SATOSHI

Examiner

Nhan T. Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 10/31/2005 & phone interview 1/17/2006.
2. ☒ The allowed claim(s) is/are 2, 4, 27, 28 and 30-38.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/31/2005 with respect to claims 2, 4, 27, 28, 30 and new claims 31-38 have been fully considered and are persuasive.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with **Kevin R. Spivak** on 1/17/2006. The application has been amended as follows:

Regarding claim 27, the following limitations have been amended:

"...a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing white balance adjustment of ~~the second signal as a logarithmic signal~~ the first signal as a linear signal;

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing ~~a predetermined signal processing~~ white balance adjustment of the second signal as a logarithmic signal;..."

Election/Restrictions

3. This application is in condition for allowance except for the presence of claims 7-17 to non-elected Species I – V without traverse filed 12/04/2003. Accordingly, claims 7-17 have been cancelled.

Allowable Subject Matter

4. Claims 2, 4, 27, 28, 30-38 are allowed.

The following is an examiner's statement of reasons for allowance (note the Examiner's amendment for claim 27):

Regarding claim 2, the prior art of record fails to teach or fairly suggest the *combination of all limitations* required in claim 2 that includes "... **a second signal processing circuit** supplied with the second signal from the solid-state image sensing device and **performing white balance adjustment of the second signal**, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion, **a logarithmic/linear conversion circuit** converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and **a third signal processing circuit** supplied with a signal from the first signal processing circuit **and** a signal converted linearly from the logarithmic/linear conversion circuit, the third signal processing circuit

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performing at least one of matrix conversion, edge enhancement, color adjustment and inverse matrix conversion to produce the linear signal.” as illustrated by Fig. 7.

Regarding claim 27, the prior art of record also fails to teach or fairly suggest the *combination of all limitations* required in claim 27 that includes “... **a second signal processing circuit** supplied with the second signal from the solid-state image sensing device and **performing white balance adjustment of the second signal as a logarithmic signal; a logarithmic/linear conversion circuit** converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and **a third signal processing circuit** supplied with a signal from the first signal processing circuit **and** a signal from the logarithmic/linear conversion circuit, the third signal processing circuit performing at least one of matrix conversion, edge enhancement, color adjustment and inverse matrix conversion to produce a linear signal.” as illustrated by Fig. 7.

Regarding claim 34, the prior art of record also fails to teach or fairly suggest the *combination of all limitations* required in claim 34 that includes “... **performing white balance adjustment of the second signal as a logarithmic signal by a second signal processing circuit**; converting the signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light by **a logarithmic/linear conversion circuit**; and performing at least one of matrix conversion, edge enhancement, color adjustment and inverse matrix conversion **on both** the signal output from the first signal processing circuit and the logarithmic/linear

conversation circuit to produce the linear signal by **a third signal processing circuit.**"
as illustrated by Fig. 7.

Regarding claims 4 & 30, these claims depend from claim 2.

Regarding claims 31-33, these claims depend from claim 27.

Regarding claims 35-38, these claims depend from claim 34.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



DAVID OMETZ
SUPERVISORY PATENT EXAMINER